NOAA COASTAL SERVICES CENTER

FELLOW NEWS

NEWS FOR AND ABOUT THE COASTAL MANAGEMENT FELLOWS

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This newsletter is being provided by the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center to relay information about the fellowship program, and to provide a forum for information exchange among fellows, mentors, Sea Grant, and CSC.

FOCUS ON FELLOWS

Katie Busse

Katie Busse, nominated by South Carolina Sea Grant Consortium and currently with the Massachusetts Coastal Zone Management program, grew up in the Midwest far from the ocean. But several undergraduate experiences and inspiring professors convinced her to make marine resource management her career.

As an undergraduate student at the University of Illinois, Katie participated in the semester-long Sea Education Association (SEA) program in Woods Hole, Massachusetts. That experience sparked her interest in oceanography, so she followed it up by taking summer courses at Friday Harbor in Washington. While at Friday Harbor, she met a professor from the University of Wisconsin who convinced her to do research at UW and study intertidal ecology. After receiving her undergraduate degree from the University of Illinois in Ecology, Katie took a year off before entering Oregon State University's marine resource management graduate program. During graduate school, she worked as an intern for the Tillamook Bay National Estuary Project to develop watershed management tools. She received her master's in 1998, the same year she was selected for the Coastal Management Fellowship program.

Katie's fellowship work with Massachusetts involves developing an adaptive special area management plan for the Parker River/Essex Bay area on the north shore of Boston. This region is part of the Area of Critical Environmental Concern (ACEC) program in the state, which identifies regionally significant resources and ecosystems and works for their long-term preservation and stewardship. The goal of the fellowship project is to expand and coordinate current resource management efforts and implementation in the Parker River/Essex Bay area by developing management tools and strategies and increasing local support through public participation.

Katie is achieving the project goal using a four-pronged approach.

Through education and outreach, Katie is increasing the public's awareness about the ACEC. She has a regular column in a local paper where she focuses on management and environmental issues associated with the area. She has also put together a brochure and hosted the state secretary of environmental affairs and the public on boat tours of the ACEC. These boat tours received local media coverage, which helped to further increase public awareness.

Katie is also providing technical assistance to officials and local conservation groups in the five towns that make up the ACEC. This includes providing GIS training and troubleshooting as well as some data development to fill in the missing data layers from the ACEC data set. She is working with partners at the state and local level to put together natural resource maps identifying priority protection areas.

Compiling a resource inventory of the ACEC is also part of Katie's approach to achieve the project goal. There has never been a synthesis of the research that has taken place in the ACEC in its 20 years of designation. Katie compiled reports and articles, and even interviewed resource scientists to gather anecdotal information to include in the inventory. The report is currently in draft format and will be finalized before Katie leaves in September.

Finally, Katie is putting together a policy analysis by reviewing local regulatory and non-regulatory resource protection strategies. She interviewed open space committee members, planning boards, and conservation committee members within each of the five ACEC towns to find out which policies are working or not working in resource protection. This information is being used to document case studies, needs, and recommendations for local and regional resource management.

One of the outcomes of Katie's fellowship project is to ensure transferability to other coastal ACECs, both rural and urban. To this end, Katie is putting together a workbook of all of her end products that will be transferred to the other ACECs to help build internal capacity.

Katie feels that her fellowship experience has been very beneficial for her, especially in the diversity of work she has been able to do. In addition, she has not only developed a number of new skills, but she has already seen an increase in awareness and support of the ACEC. What does life after the fellowship hold for her? She hopes to stay with the state coastal program and live on Cape Cod, three blocks away from the SEA program where her love for the ocean began eight years ago.

Melanie Coyne

Melanie Coyne, nominated by Hawaii Sea Grant and currently with the California Coastal Commission and the Department of Boating and Waterways,

has had a life-long love of the beach. Although she grew up in Atlanta, summers were spent at her family's beach home on an eroding bluff on Cape Cod. Throughout her childhood, she watched the beach in front of the house getting smaller and smaller; however, it wasn't until she took a geological oceanography course as an undergraduate at Wellesley College that she began to understand what was happening and why. She fell in love with geology and ended up going on to graduate school at the University of Hawaii to study geology and geophysics. Her graduate work focused on a shoreline change analysis of the island of Oahu and culminated in a series of erosion hazard maps illustrating the intensity and geographic extent of erosion hot spots along Hawaii's coast.

Melanie's current work with the California Coastal Commission and Department of Boating and Waterways involves the development of a geographic information system (GIS)-based decision-support model to help prioritize sites for beach renourishment. The bulk of her time during the first year of the project was spent developing evaluation criteria for beach site selection. By doing a lot of research, and bouncing ideas off of a small technical review committee, she came up with four filters (technical, environmental, access, and logistical), each of which is supported by a number of criteria. Because of the diversity of California's coast, the criteria had to be general enough to be applicable statewide.

Once the criteria were developed, Melanie used a filtering routine in ArcView® to determine which sections of coast were appropriate for beach nourishment from a technical perspective. She faced a real challenge in her project, however. Because the beach is a line instead of a polygon, she needed an efficient way to handle all the attributes. By doing some more research and talking to many different scientists, she found a tool that was developed in the transportation industry and is now finding application in other fields: dynamic segmentation. Although not fully developed for ArcView, she was able to design an extension to use it for her project.

During this second year of the project, Melanie is busy gathering data for her model. Her primary data source, old Army Corp of Engineer reports, is not in digital format, so she is spending time digitizing them. She is testing the model using a pilot study area in Orange County where the Army Corp is completing an extensive coastal study. One of the biggest challenges of the project has been finding enough data to make the model useful.

Melanie is also working with the California Department of Boating and Waterways to examine the evaluation of potential beach nourishment projects from a regulatory perspective. With her mentor there, she has just completed the development of an application package to be used by agencies when seeking state financial support for beach nourishment projects. A key component of the proce-

dure will be a quantified approach to evaluating application packages that will lead to objective prioritization of potential projects.

Melanie's final GIS product will be a user-friendly decision-support model that won't require the user to know ArcView to operate it. This product will also be part of the curriculum the Center is putting together for a new GIS course they hope to pilot next year.

In addition to her main project, Melanie is providing technical support to California Coastal Commission staff on ArcView® and image analysis projects. She is also helping to update the State Resources Agency's coastal erosion and planning document, which hasn't been revised since 1978. Once Melanie did an initial revision, she worked with a small committee to revise it further. It is currently out for public review, and then she'll organize a series of workshops throughout the state to allow an opportunity for public comment.

Looking back on her fellowship experience, Melanie feels that one of the biggest rewards has been the opportunity to attend conferences and training to expand her network and expertise. She has also been able to work with a number of different state agencies on related projects. This has helped improve communication and increase awareness statewide on beach renourishment issues. A final, but no less important, reward has been to expose Coastal Commission staff to new techniques and technologies that will enhance their daily work.

Melanie and her husband plan to stay in the San Francisco Bay area after the fellowship is completed. She hopes to put her technical skills and expertise in geology to use in a position with a governmental agency or nonprofit organization.

FOCUS ON THE CENTER

The Center's Coastal Learning Services program, in partnership with NOAA's National Estuarine Research Reserves Division, has put together a two-day training needs assessment course for coastal resource managers and education and outreach staff. This course provides ready-to-use tools and techniques to train participants about the benefits and methodologies of assessing the audience's needs before undertaking a project or training.

The course is available to staff of the state coastal management programs, research reserves, Sea Grant, National Marine Sanctuaries, and other local partners such as the National Estuary Program. Courses are held on-site in a region to allow more opportunity for staff to attend and to encourage networking and data sharing. To date, courses have been held in the Northeast (Waquoit, Massachusetts) and Southeast (Naples, Florida). Future courses are planned for the mid-Atlantic (Wilmington, North Carolina) and Southwest (San Diego, California).

For more information, contact Ginger Hinchcliff, NOAA Coastal Services Center, at ginger.hinchcliff@noaa.gov.

FOCUS ON THE FELLOWSHIP PROGRAM

2000 Fellows Selected

A new group of fellows was selected at the Matching Workshop in April. Six fellows were matched with six state coastal programs to work on exciting and innovative projects. Delaware's coastal zone management program, although selected to host a fellow, deferred placement of one until 2001. The new fellows will begin August 1. Check out the fellowship home page for a description of their projects: *www.csc.noaa.gov/cms/fellows.html.*

- **Shari Currey** from Oregon State University will be working with the **Massachusetts Coastal Zone Management program** on a project entitled "Management of Environmental Impacts of Personal Watercraft: Pleasant Bay, Cape Cod, Pilot Project."
- **Becky Ellin** (nominated by South Carolina Sea Grant) from the University of South Carolina will be working with the **California Coastal Commission** on a project entitled "Creation of a Habitat Inventory and Information System to Facilitate Wetland Preservation and Restoration in Central and Northern California."
- **Ian Zelo** (nominated by Washington Sea Grant) from the University of Washington will be working with the **Florida Coastal Zone Management program** on a project entitled "An Evaluation of Management and Human Use Concerns in Coastal/Marine Ecosystems: A Contribution to Adaptive Coastal Management."
- **Sherri Littman** (nominated by Georgia Sea Grant) from the University of Georgia will be working with the **New York Coastal Zone Management program** on a project entitled "South Shore of Long Island Coastal Resources: Enhancing Management."
- **David Revell** from Oregon State University will be working with the **Oregon Coastal Zone Management program** on a project entitled "Littoral Cell Management Plan."
- **Rachel Smyk-Newton** (nominated by the University of Southern California Sea Grant) from the University of California at Santa Barbara will be working with **Maryland Coastal Zone Management program** on a project entitled "Designing a Comprehensive and Regional Approach for Shore Erosion Control in the State of Maryland."

UPCOMING REGIONAL AND NATIONAL COASTAL WORKSHOPS AND CONFERENCES

If you know of other workshops and conferences that might be of interest to fellows and their mentors, please e-mail Jan Kucklick (jan.kucklick@noaa.gov) with all the vital information: workshop/conference name, date, location, conference sponsors, point of contact, and any other applicable information.

130th American Fisheries Society Annual Meeting

August 20-24, 2000; St. Louis, Missouri

Visit the Web site at www.fisheries.org/annual2000/index.htm

Coastal Zone Canada 2000

September 17-22, 2000; Saint John, New Brunswick

Visit the Web site at www.sybertooth.ca/czczcc2000

GeoTools '01

January 8-11, 2001; Charleston, South Carolina

Visit the Web site at www.csc.noaa.gov/GeoTools